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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/004,376	10/22/2001	Richard P. Stoynoff	LEC 0156 PUS	7272

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EXAMINER
LEO, LEONARD R

ART UNIT	PAPER NUMBER
3743	

DATE MAILED: 03/11/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	10/004,376	STOYNOFF ET AL.
	Examiner	Art Unit
	Leonard R. Leo	3743

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *09 December 2002* .

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-19* is/are pending in the application.

4a) Of the above claim(s) *19* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-13 and 15-18* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *03 October 2002* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☒ The proposed drawing correction filed on *03 September 2002* is: a)☒ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 9 .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other:

DETAILED ACTION

The amendment filed December 9, 2002 has been entered. Claims 1-19 are pending.

Election/Restrictions

Newly submitted claim 19 directed to an invention that is independent or distinct from the invention originally claimed for the following reasons:

Restriction to one of the following inventions is required under 35 U.S.C. 121:

I. Claims 1-18, drawn to a heat exchanger, classified in class 165, subclass 135.

II. Claim 19, drawn to a method of manufacturing a fin, classified in class 29, subclass 890.03+.

The inventions are distinct, each from the other because of the following reasons:

Inventions I and II are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case, the product as claimed can be made by another and materially different process such as stamping or punching.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claim 19 is withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

Claim Objections

Claims 3 and 14 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.

Regarding claims 3 and 14, claim 1 recites louvers in the first and second fins.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 3-4, 6, 13 and 15-16 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Makino et al (Figures 21-23) or Nishishita et al (WO 99/26035).

Claims 1, 3-6, 13 and 15-16 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Nishishita (WO 99/53253).

Claims 1-4, 6-10, 12-13 and 16-17 are rejected under 35 U.S.C. 102(b) as being anticipated by Sugimoto et al (5,992,514)(column 8, lines 17-21) or Yamanaka et al (Figures 3-4, column 10, lines 17-22).

In the rejections above, the recitation of "by teeth in intermeshing forming rolls with the serpentine fins and louvers in one pass through the forming rolls" is considered to be a method limitation in an apparatus claim, which bears no patentable weight in this instance.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sugimoto et al (5,992,514) or Yamanaka et al in view of Tategami et al.

Sugimoto et al (5,992,514) or Yamanaka et al discloses all the claimed limitations except a non-homogeneous thermal fuse.

Tategami et al discloses a multiple core heat exchanger comprising a first core 10 and a second core 20, each having a plurality of channels and a common fin having a non-homogenous thermal fuse (Figure 4) for the purpose of minimizing thermal conduction between the cores.

Since Sugimoto et al (5,992,514) or Yamanaka et al and Tategami et al are both from the same field of endeavor and/or analogous art, the purpose disclosed by Tategami et al would have been recognized in the pertinent art of Sugimoto et al (5,992,514) or Yamanaka et al.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ in Sugimoto et al (5,992,514) or Yamanaka et al a non-homogenous thermal fuse for the purpose of minimizing thermal conduction between the cores as recognized by Tategami et al.

Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sugimoto et al (5,992,514) or Yamanaka et al in view of Motegi et al.

The device of Sugimoto et al (5,992,514) or Yamanaka et al lacks a non-uniform length slit.

Motegi et al discloses a heat exchanger (Figure 2) comprising first and second rows of tubes 11; a common fin with thermal fuses 32 and slits 31 disposed between the rows; and non-uniform slit 33 for the purpose of minimizing thermal conduction between the rows and supporting the fin assembly (column 6, line 51 to column 7, line 20).

Since Sugimoto et al (5,992,514) or Yamanaka et al and Motegi et al are both from the same field of endeavor and/or analogous art, the purpose disclosed by Motegi et al would have been recognized in the pertinent art of Sugimoto et al (5,992,514) or Yamanaka et al.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ in Sugimoto et al (5,992,514) or Yamanaka et al a non-homogenous thermal fuse for the purpose of minimizing thermal conduction between the cores as recognized by Motegi et al.

Response to Arguments

The drawings objection under 37 CFR 1.83(a) is withdrawn.

The rejection under 35 U.S.C. 112, first paragraph, is withdrawn.

The anticipatory rejections in view of Tategami et al, Watanabe et al, Nishishita et al (WO 98/25092), Sugimoto et al (6,189,603 and 6,357,518), Ozaki et al (6,213,196 and 6,267,174) and Sasano et al are withdrawn.

Regarding applicants' remarks with respect to Makino et al, Nishishita et al (WO 99/26035) and Nishishita (WO 99/53253), the thermal breaks are composed of slits with corresponding slats, without the removal of material.

Regarding applicants' remarks with respect to Sugimoto et al (5,992,514) or Yamanaka et al, the thermal breaks are composed of slits having a clearance between the first and second fins on the order of 0.5 mm. Although, applicants recite a slit that is cut without the removal of material, the Examiner is unaware of any process that cuts without forming a gap between the cut portions. As such, the latter references are believed to meet the instant invention as claimed, since the "rollers" of applicants must form some gap between the first and second fins.

Furthermore, as evidenced by Motegi et al (column 6, lines 51-55), it is well known in the art to form cuts or slits having "substantially no width."

Although claim 14 has not been rejected, the merits of the claim in its present form cannot be ascertained.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry of a general nature, relating to the status of this application or clerical nature (i.e. missing or incomplete references, missing or incomplete Office actions or forms) should be directed to the Technology Center 3700 Customer Service whose telephone number is (703) 306-5648.

Any inquiry concerning this Office action should be directed to Leonard R. Leo whose telephone number is (703) 308-2611.

Leonard R Leo

LEONARD R. LEO
PRIMARY EXAMINER
ART UNIT 3743

March 9, 2003